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Biography

Mr. Arthur Reiff

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Transformational Communications Program (TCP)

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Transformational Communications Program (TCP)

DEFINITION

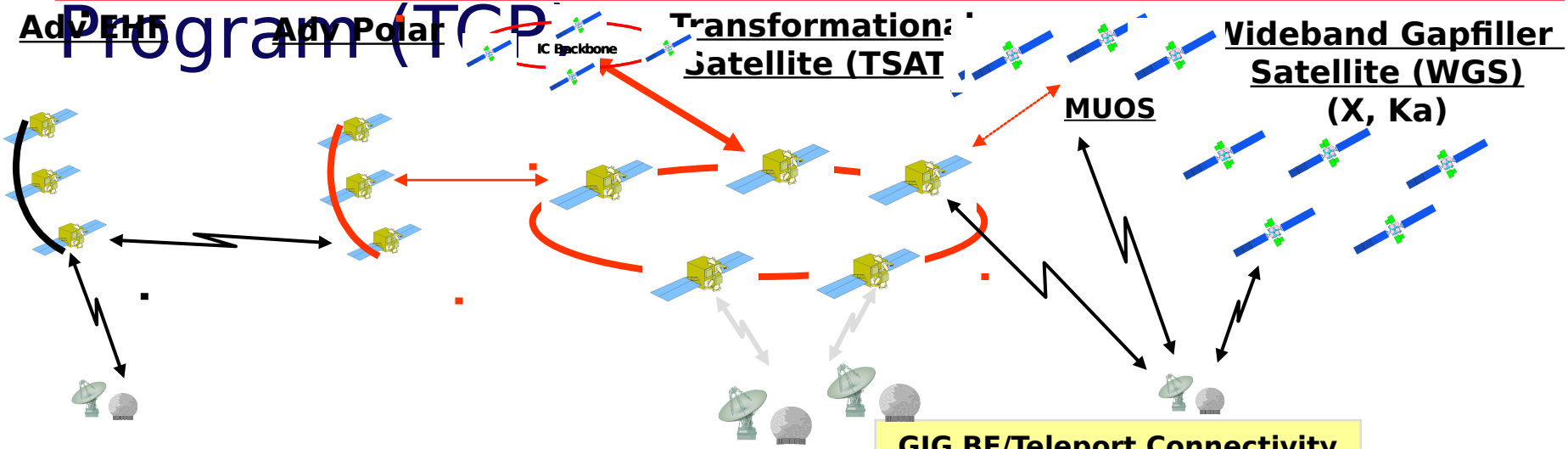
- Single Integrated Communications Network
  - Satellite and Ground Internet Protocol (IP) Based
  - Support user needs for ‘end-to-end’ information exchanges of all types
  - Users focused on mission not planning and requesting resources
  - Accommodates surges and diverse scenarios
- Links Various Communications Networks
  - Warfighter and Intelligence Community
  - Meet Emerging Threats and Mission Requirements
- PEO EIS PM DCATS - Acquisition Agent
  - Enterprise SATCOM Earth Terminals
  - Network Operations Center
- DoD Integrated Process Teams and Working Groups formulating System Concepts

Transformational Communications Program (TCP)

CHARACTERISTICS

- Preliminary Government Referenced Architecture (GRA)
- Transformational Satellite (TSAT) Enterprise Earth Terminal Concepts
- Network Operations Center (NOC) Concepts

Transformational Communications Program (TCP)



Features:
- Protected
- strategic survivable
- Crosslink Gimbal mods on AEHF-3 for Polar connectivity

Features:
- Extended data Rate (XDR)
- Strategic Survivable
- Radio Freq and Lasercomm (LC) links

Common:
Network Centric
IP + Circuit

Features:
- Protected, XDR+ , Processed EHF, Ka/X
- Strategic survivable
- Laser (hardened) crosslink
- Future LC Socket for Mobile User Objective System (MUOS)

Features:
- X, Ka
- Modified for 274 Mbps links

RF
Laser

Launch Schedule

WGS 4-5	TSAT Spiral 1	Adv Polar
3Q 2009	4Q 2009	2Q 2009
3Q 2010	4Q 2010	2Q 2010
	4Q 2011 (MA)	2Q 2011
	4Q 2012 (MA)	
	4Q 2013 (MA)	

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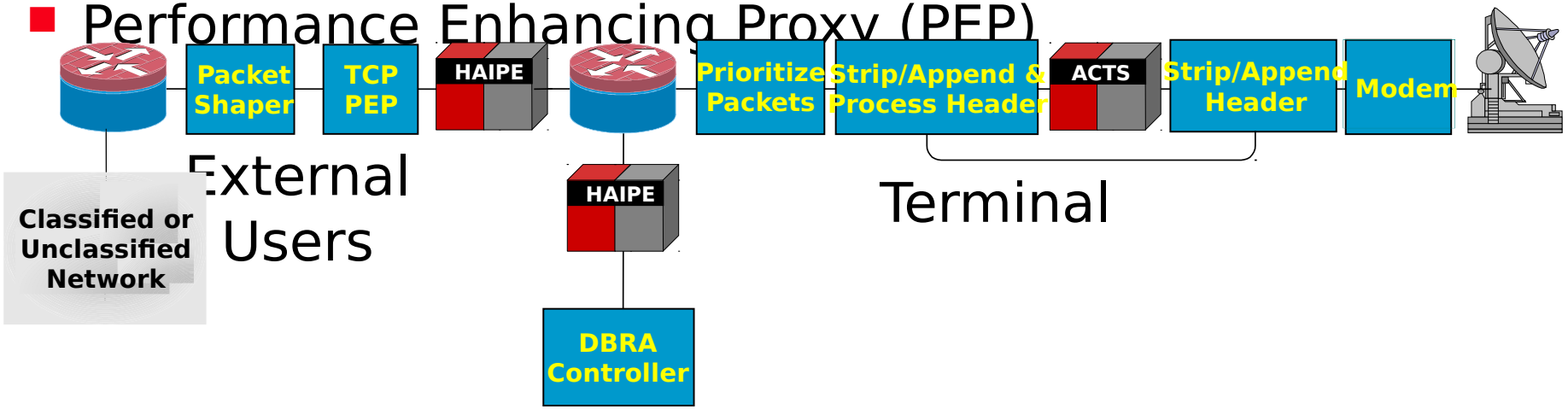
TSAT Enterprise Earth Terminal Functio

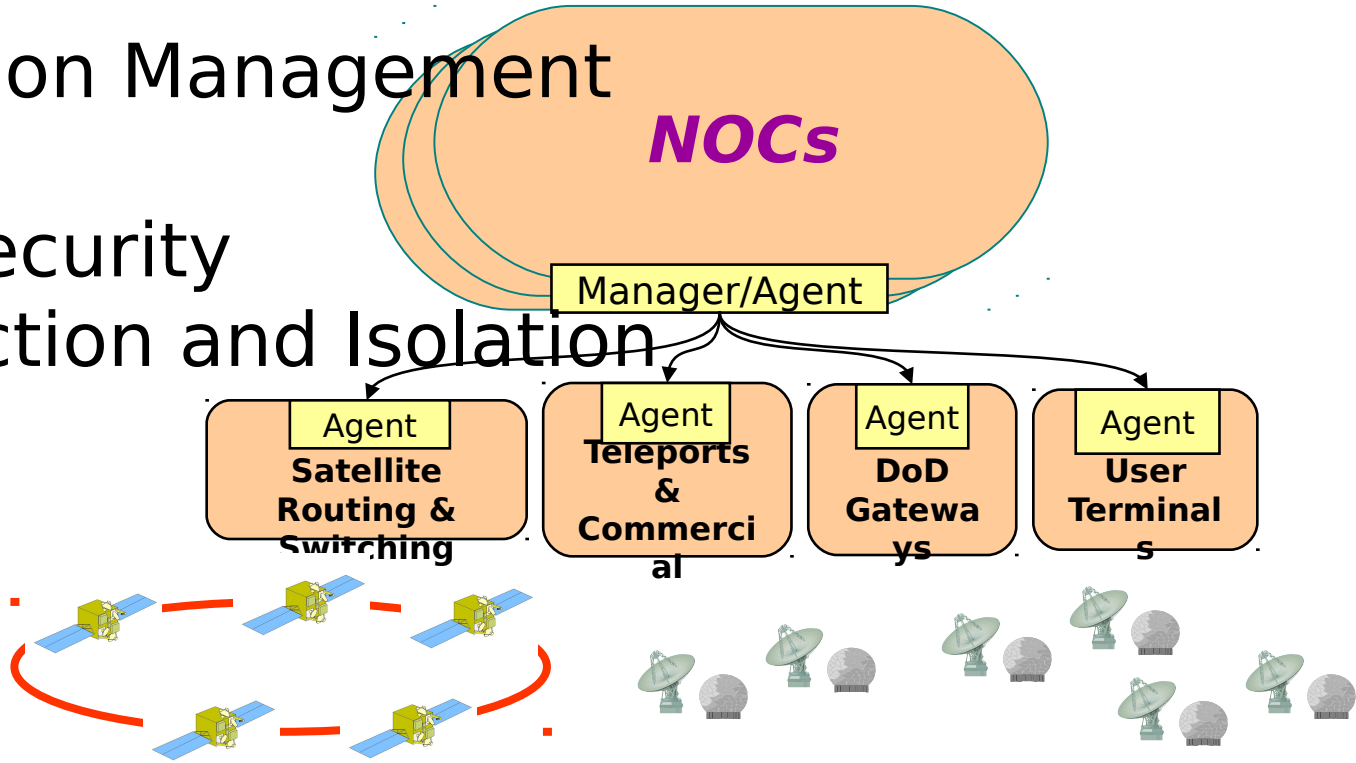
- Data Protection - High Assurance Internet Protocol Encryption (HAIPE)
- Header Protection - AEHF COMSEC TRANSEC System (ACTS)
- Dynamic Bandwidth Resource Allocation (DBRA)
- Performance Enhancing Proxy (PEP)



Transformational Communications Program (TCP)

Network Operations Center (NOC)

- Planning
- Configuration Management
- Monitoring
- Network Security
- Fault Detection and Isolation



Transformational Communications Program (TCP)

Enterprise Earth Terminal

Transformational Communications Program (TCP)

- OBJECTIVE: Develop and Procure X-band, Ka-Band, EHF Compatible Large Fixed Earth Terminals
  - Multi-Channel
  - Single or Multi-band

- CONTRACT TYPE: TBD

- ESTIMATED VALUE: $200-300M

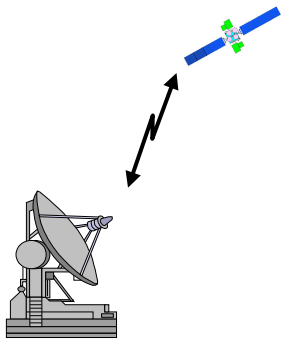
- KEY MILESTONES:
  - R&D – FY05 through FY07
  - Production – FY08 and Beyond

- TECHNICAL CONTACT: Art Reiff, (732) 532-5517
- ACQUISITION CONTACT: TBD
- SOLICITATION # or RFQ #: TBD

Transformational Communications Program (TCP)

Dynamic Bandwidth Resource Allocation (DBRA) Controller

- Monitors user traffic demands
- Negotiate terminal throughput with Satellite DBRA controller
- Order near-real-time change in terminal parameters (Power, Waveform, Coding) to implement agreed t



Transformational Communications Program (TCP)

- OBJECTIVE: Develop and Procure Dynamic Bandwidth Resource Allocation (DBRA) Controller for all Enterprise Earth Terminals

- CONTRACT TYPE: TBD

- ESTIMATED VALUE: $10-20M

- KEY MILESTONES:
  - R&D – FY05 through FY07
  - Production – FY08 and Beyond

- TECHNICAL CONTACT: Art Reiff, (732) 532-5517
- ACQUISITION CONTACT: TBD

- SOLICITATION # or RFQ #: TBD

Transformational Communications Program (TCP)

Extended Data Rate Plus (XDR+) Modem

- Compatible with emerging Extended Data Rate Plus (XDR+) waveform standard
- Supports users up to 274 Mbs or more

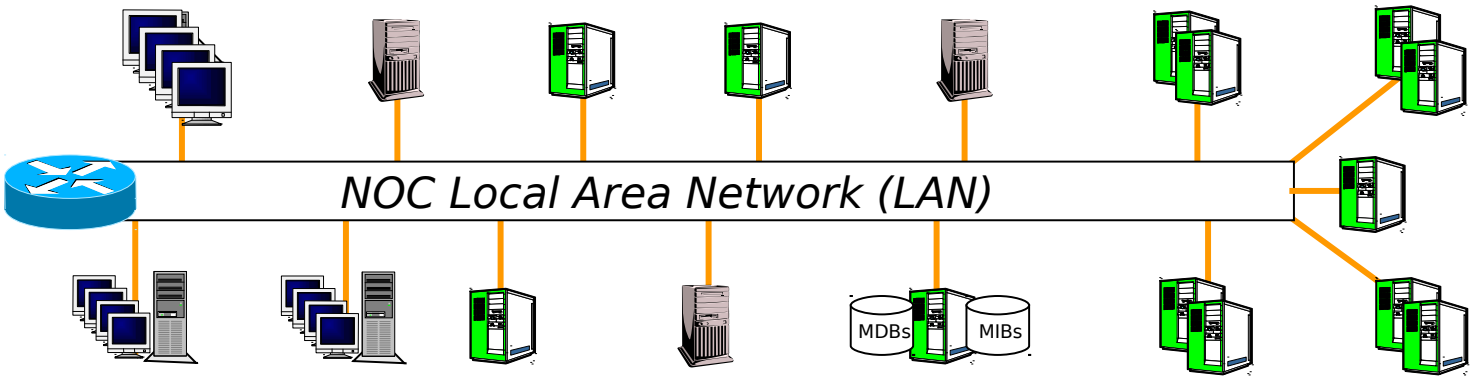
Transformational Communications Program (TCP)

- OBJECTIVE: Develop and Procure Modems Compatible with the XDR+ Waveform Standard
- CONTRACT TYPE: TBD
- ESTIMATED VALUE: $50-70M
- KEY MILESTONES:
  - R&D – FY05 through FY07
  - Production – FY08 and Beyond
- TECHNICAL CONTACT: Art Reiff, (732) 532-5517
- ACQUISITION CONTACT: TBD
- SOLICITATION # or RFQ #: TBD

Transformational Communications Program (TCP)

Network Operations Center (NOC) Equipment Suite

- Payload Configuration Processor
- Access Control & DBRA Processor
- System Databases
- Engineering Models
- FY05 – FY06 Start



Transformational Communications Program (TCP)

- OBJECTIVE: Develop and Procure Suites of Equipment for the TC NOC's at Five Locations Worldwide

- CONTRACT TYPE: TBD

- ESTIMATED VALUE: $200-300M

- KEY MILESTONES:
  - R&D – FY05 through FY07
  - Production – FY08 and Beyond

- TECHNICAL CONTACT: Art Reiff, (732) 532-5517
- ACQUISITION CONTACT: TBD

- SOLICITATION # or RFQ #: TBD

Transformational Communications Program (TCP)

CHALLENGES

- Technical
  - Real Time Dynamic Satellite Resource Allocation
  - Multi-band (X, Ka, EHF) Terminals
  - Support high data rate users
- Programmatic
  - Put system in place for 4Q2009 first launch
  - Joint Key Decision Point (KDP-B) scheduled for July 2003

Transformational Communications Program (TCP)

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